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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,211	08/06/2001	Travis Wayne Cavender	2001-IP-004118	8979

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EXAMINER

SAFAVI, MICHAEL

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,211

Applicant(s)

CAVENDER, TRAVIS WAYNE

Examiner

M. Safavi

Art Unit

3673

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38,45-48,56-58,62 and 63 is/are allowed.
- 6) ☒ Claim(s) 36, 37, 39-44, 49-55, 59-61, 64, and 65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 64 and 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 64, lines 10-13, it is not clear as to what is being defined by “utilizing the production wellbore, during substantially all periods of usage thereof, only to withdraw gas from the formation; and utilizing the injection wellbore, during substantially all periods of usage thereof, only to Inject gas into the formation.” Are lines 10-13 of claim 64 directed to an intended procedure? The language at lines 10-13 of claim 64 does not present a positive procedural step that would serve to further limit the invention. The term to “utilizing” does not, in itself, define a procedural step. And, recitation of “during substantially all periods of usage thereof” appears to merely recite a desired course of action. See, as well, lines 9-14 of claim 65, which present the same language as lines 10-13 of claim 64. The language at lines 9-14 of claim 65 does not present a positive procedural step that would serve to further limit the invention. The term to “utilizing” does not, in itself, define a procedural step. And, recitation of “during substantially all periods of use thereof” appears to merely recite a desired course of action. Otherwise, one may, at any point in time, “utilize” one or another wellbore for injecting gas and “utilize” one or another wellbore for withdrawing gas. The metes and bounds of the language of claims 64 and 65 can, therefore, not be ascertained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 36, 37, 39-44, 49, 52-55, 59, 64, and 65 are rejected under 35

U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Donovan et al.

Donovan et al. discloses, Fig. 2, a method involving extension of a production wellbore, (any of 20b', 20b'', 20b''', or any of 20), and a separate storage wellbore, (any of 20b', 20b'', 20b''', or any of 20), intersecting the production wellbore, (with the production wellbore intersecting the storage wellbore), at a junction leading into a main wellbore 10, (or 20b in the case of wellbores 20b', 20b'', and 20b'''), though 20b serves as a wellbore. The formation into which any or all of 20a, 20n, and 20b, (including 20b', 20b'', and 20b'''), extend forms a single formation. Injecting and withdrawing gas from respective wellbores is taught at col. 3, lines 45-48 and col. 6, line 66 to col. 7, line 6

Art Unit: 3673

where Donovan et al. teaches injecting gas through any of the wellbores into the formation as well as withdrawing gas from the formation through any of the wellbores. Thus, Donovan et al. teaches "injecting gas from the main wellbore into the gas storage formation via the storage wellbore and withdrawing gas from the gas storage formation into the main wellbore via the separate production wellbore". The wellbores 20a, 20n, 20b, (including 20b', 20b'', and 20b'''), can be seen as separate wellbores with wellbores 20b', 20b'', and 20b''' meeting at a "junction", (as that section extending from 20b' to 20b'' or extending from 20b' to 20b'''), to main wellbore 20b or 10. Or, the wellbores 20a, 20n, 20b, (including 20b', 20b'', and 20b'''), can be seen as separate wellbores with wellbores 20b, 20a, and 20n meeting at a "junction", (as that section to which they extend meeting main wellbore 10), to main wellbore 10. Valves are included for control of gas flow within each or any of the tubular strings within each respective wellbore, col. 6, lines 6-10. Injection and production tubular strings are located within the main wellbore as along 26. As stated above, Donovan et al., as at col. 3, lines 45-48 and col. 6, line 66 to col. 7, line 6, does disclose injecting gas through any of the wellbores into the formation as well as withdrawing gas from the formation through any of the wellbores. Thus, Donovan et al. teaches "injecting gas from the main wellbore into the gas storage formation via the storage wellbore and withdrawing gas from the gas storage formation into the main wellbore via the separate production wellbore". However, it would have been an obvious expedient to one having ordinary skill in the art at the time the invention was made to inject as well as withdraw gas from any of the wellbores singularly or in any grouped arrangement. Thus, one may inject gas utilizing a

Art Unit: 3673

single wellbore or grouping of wellbores while withdrawing gas, utilizing a separate single wellbore or separate grouping of wellbores from that or those which inject gas.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 50, 51, 60, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donovan et al. Donovan et al. teaches, Fig. 6, various arrangements of pipes or tubular strings within the main wellbore. To have formed any of the tubular strings within the main wellbore as a production tubular string and an injection tubular string formed coaxially with the injection tubular string formed within the production tubular string, thus allowing for a compact arrangement within the main wellbore, would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made as taught by Fig. 6 of Donovan et al.

Claims 38, 45-48, 56-58, 62, and 63 are allowed.

Response to Arguments

Applicant's arguments filed November 12, 2004 have been fully considered but they are not persuasive. Contrary to Applicant's assertion the recitation of "during

Art Unit: 3673

substantially all periods of use thereof” does not clearly define a positive method claim limitation requiring that the wellbore be “dedicated” to an injection use and that the production wellbore be “dedicated” to a production use. The recitation at lines 10-13 of claim 64 and at lines 9-14 of claim 65 merely present a desired action or intended achievement. For example, it is not clear as to what is being defined by “during substantially all periods of usage thereof”. What would define “all periods of usage thereof” or what would define “substantially all periods of usage thereof”? Are there any periods of usage when the production wellbore is not used “only to withdraw gas from the formation”? Are there any periods of usage when the injection wellbore is not used “only to inject gas into the formation”? Perhaps claims 64 and 65 are directed to a method in those instances or “periods” when the production wellbore is not used “only to withdraw gas from the formation” and the injection wellbore is not used “only to inject gas into the formation”? Thus, the metes and bounds of the language of claims 64 and 65 can, therefore, not be ascertained.

As for Applicant’s arguments against the rejections involving Donovan et al., Donovan et al. discloses a “storage formation” in the same manner as the instant specification, (see, for example, Figures 2-7 of the instant disclosure). The term to “formation” reads upon a formation of any given extent, the use of the plurality by Donovan et al. notwithstanding. What is shown in Fig. 2 of Donovan et al. serves to read upon a “formation”. Thus, as expressed in the above rejection Donovan et al. discloses or suggests injecting via any one of the wellbores and withdrawing via any other ones of the wellbores.

Art Unit: 3673

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (703) 308-2481. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



M. Safavi
January 25, 2005

**MICHAEL SAFAVI
PRIMARY EXAMINER
ART UNIT 354**